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IS 5981 (1986): Sleekers for use in foundries [MTD 14: Foundry]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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IS : 5981 - 1986

*Indian Standard*  
SPECIFICATION FOR  
SLEEKERS FOR USE IN FOUNDRIES  
( *First Revision* )

UDC 621.744.075



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**INDIAN STANDARDS INSTITUTION**  
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG  
NEW DELHI 110002

# *Indian Standard*

## SPECIFICATION FOR SLEEKERS FOR USE IN FOUNDRIES

### ( *First Revision* )

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*Indian Standard*  
**SPECIFICATION FOR  
SLEEKERS FOR USE IN FOUNDRIES**  
*( First Revision )*

**0. FOREWORD**

**0.1** This Indian Standard ( First Revision ) was adopted by the Indian Standards Institution on 27 January 1986, after the draft finalized by the Foundry Sectional Committee had been approved by the Structural and Metals Division Council.

**0.2** This standard was first published in 1970. While reviewing this standard in the light of the experience gained during these years, the Sectional Committee decided to revise it with the following main modifications:

- a) Material requirement has been modified,
- b) Reference to hard chromium coating on sleekers has been deleted, and
- c) The hardness range has also been modified.

**0.3** For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960\*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

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**1. SCOPE**

**1.1** This standard covers the requirements for sleekers used as trimming tools, for use in foundries.

**2. SUPPLY OF MATERIAL**

**2.1** General requirements relating to the supply of sleekers shall be as laid down in IS : 1918-1966†.

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\*Rules for rounding off numerical values (*revised*).

†Methods of physical tests for foundry sands.

### **3. TYPE OF SLEEKERS**

**3.1** Sleekers shall be of the following two types as shown in Table 1.

- a) Straight sleekers, Type A, and
- b) Form sleekers, Type B.

### **4. DIMENSIONS AND TOLERANCES**

**4.1** Dimensions of Type A sleekers shall be as given in Table 1 and Type B sleekers shall be as given in Table 2.

**4.2** Tolerances on dimensions as specified above shall meet the requirements of Grade 1 T 14 of IS : 919 ( Part 1 )-1963\*.

### **5. DESIGNATION**

**5.1** Type A sleekers of length 125 mm and end width 16 mm having an angle of 30° shall be designated as:

Sleeker A 30-125 IS : 5981

**5.2** Type B sleekers shall be designated by their total length and the angle, for example : sleeker of length 125 mm and handle length 60 mm shall be designated as:

Sleeker B-125 IS : 5981

### **6. MATERIAL**

**6.1** Sleekers shall be manufactured by forging iron and medium carbon steel of Class 5 as per IS : 1875-1978†.

### **7. HARDNESS**

**7.1** The hardness of the sleekers after heat treatment ( hardened and tempered ) shall be in the range of 233-258 HV.

### **8. FREEDOM FROM DEFECTS**

**8.1** Surfaces of the heat-treated sleekers shall be free from cracks, burrs, scales, rust, etc.

**8.2** Sleekers shall also be free from harmful internal defects.

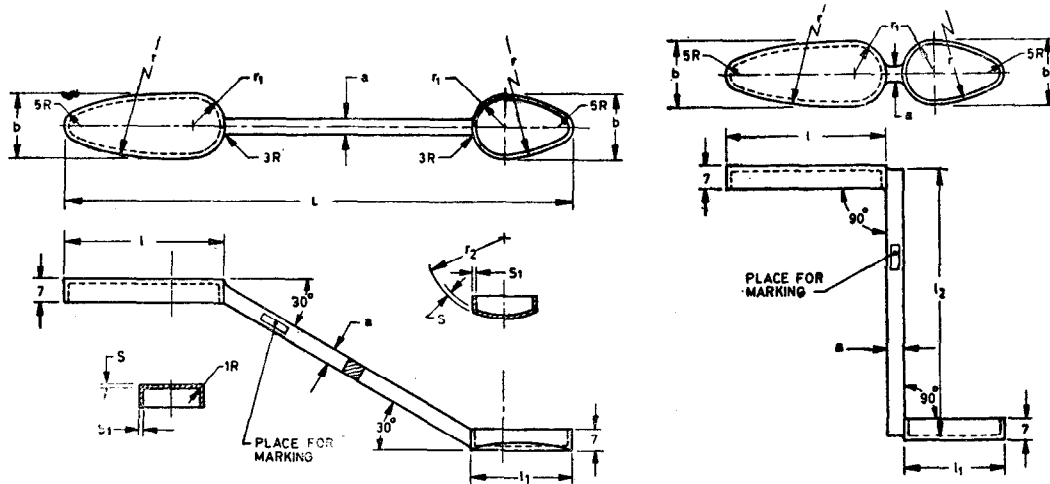
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\*Recommendations for limits and fits for engineering: Part 1 General engineering ( first revision ).

†Specification for carbon steel billets, blooms, slabs and bars for forgings ( fourth revision ).



**TABLE 1 DIMENSION OF TYPE A, STRAIGHT SLEEKERS**  
( Clause 4.1 )

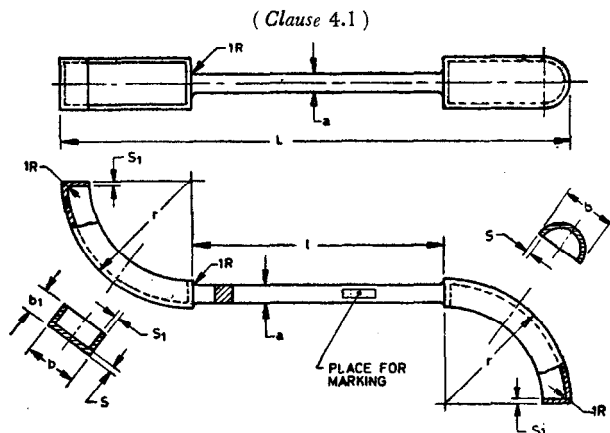


**ALTERNATIVE SHAPE**

All dimensions in millimetres.

$L$	$l$	$l_1$	$b$	$S$	$S_1$	$a$	$r$	$r_1$	$r_2$	$l_2$
125	32	25	16	1.6	1	5	60	8	20	78.5
160	50	32	20				80	10	25	90
200	60	40	32	2.0	1.6	6	100	16	32	115.5

TABLE 2 DIMENSIONS OF TYPE B, FORM SLEEKERS



All dimensions in millimetres.

$L$	$l$	$r$	$b$	$b_1$	$S$	$S_1$	$a$
125	60	32.5	10	8	1.6	1.0	5
160	80	40.0	16	10	2.0	1.6	6
200	100	50.0	20	12	2.5	2.0	7

## 9. PACKING

**9.1** Each sleeper shall be coated with a thin film of rust preventive oil and wrapped separately in moisture proof paper.

**9.2** Sleepers of same type and size shall be packed in cartons containing twelve instruments. Cartons shall be glued and reinforced with strips. Cartons shall be packed in wooden boxes weighing not more than 50 kg overall.

## 10. MARKING

**10.1** Each sleeper shall be marked clearly with the manufacturer's name or trade-mark, manufacturing date and the designation of the tool.

**10.1.1** Cartons and boxes shall also be marked with the information given under **10.1**.

**10.2** It may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

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